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Work, Wages, and Schooling of Eight Hundred Iowa Boys

in Relation to the Problems of Vocational Guidance

BY

ERVIN E. LEWIS

PUBLISHED BY THE UNIVERSITY, IOWA CITY, IOWA

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IOWA CITY

University Extension Bulletin No. 9

O. E. KLINGAMAN, M. A., Editor

Work, Wages, and Schooling of Eight Hundred Iowa Boys

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ERVIN E. LEWIS

Associate Professor of Education

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FOREWORD

The investigation herein reported was made during July and August, 1914, in Des Moines and Sioux City, by the Extension Division in co-operation with the College of Education of the University. Mr. E. E. Lewis, Associate Professor of Education, was asked by the Director of the Extension Division and the Dean of the College of Education to outline the study and to take charge of the investigation. Under his direction the materials for the study were collected and tabulated, and the report written. Mr. Robert Reinow was employed by the Extension Division to do the field work. He was assisted by Mr. C. F. Kurtz and Mr. E. J. Ashbaugh. Mr. Russell Stevenson of the Extension Division and Mr. Newcomb, a graduate student in education, assisted in tabulating portions of the data.

The investigation was not made with any preconceived ideas in mind with respect to what ought to be the work, wages, and schooling of boys of high school age and no program of reform is here advocated. The study represents a sincere effort on the part of the investigators to ascertain the facts concerning the employment of boys of high school age in two of the larger cities of this state.

The widespread interest in the subjects of vocational education and vocational guidance in connection with public schools is in itself sufficient justification for such a study. If the public schools are to introduce successfully vocational education and vocational guidance they must first know more about the vocations that boys enter upon leaving school, and also something of the conditions of work in these vocations.

All leaders in this field are agreed that very careful vocational surveys are first necessary. The present investigation is an effort in this direction, and the results as presented in this bulletin should prove of great value and interest to social workers, teachers, superintendents, and parents in Iowa.

Work, Wages, and Schooling of Eight Hundred Iowa Boys

In Relation to Problems of Vocational Guidance

SCOPE OF THE INVESTIGATION

The original intention in this investigation was to interview one thousand boys of Iowa, from sixteen to twenty years of age, who had not completed a course in a high school, and to secure from each an accurate statement of his vocational progress since leaving school. The investigators were instructed to go directly to the boys, to explain briefly to them the purpose of the investigation and to ask for their co-operation. A printed card containing the following questions was formulated and placed in the hands of the investigators. All of the questions were to be answered by each boy.

What is the boy's name?
What is his present age (nearest birthday), and address?
What grade does he say he was in at the time he left school?
What was his age at that time?
What is the name and location of the school he last attended?
What was his reason (or reasons) for leaving school?
How long after leaving school was he idle before he secured work?
How many different jobs has he been in since leaving school?
For each job he has been in, answer the following questions:
Kind of job;
Kind of business;
How he found the job;
How long he was in it;
His average weekly wages;
(a) When he started the job, and
(b) When he left it;
The length of time idle between jobs;
The reason for changing jobs;
What trade if any does the boy now desire to prepare for?

About nine hundred boys in Des Moines and one hundred boys in Sioux City were interviewed by the investigators. Nearly

twenty per cent of them were reached on holidays and during the evenings in pool halls and on the street. Returns from about eighty per cent were secured during working hours through the co-operation of employers, more than two hundred of whom were interviewed. Only two employers regarded the investigators with suspicion and refused to allow the boys in their establishments to be interviewed. Reliable data were received from more than eight hundred boys. The remaining cases are excluded from this report, because the replies were not complete.

The investigators are aware that one cannot depend too much upon the memory of boys of these ages. The errors are larger and more numerous than desired. On the other hand, the selection is one of pure chance and the errors to some extent counterbalance each other. Although the data are not so reliable as desired they are at all events approximate, and certainly are better than any other data at present available upon the same subject.

AGE OF THE BOYS AT THE TIME OF THE INVESTIGATION

Of the boys whose ages were known 1 was 12 years old at the time of the investigation, 2 were 13 years old, 17 were 14 years old, 58 were 15 years old, 101 were 16 years old, 139 were 17 years old, 126 were 18 years old, 131 were 19 years old, 93 were 20 years old, 89 were 21 years old, 61 were 22 years old, and 1 was 24 years old. These figures show that 507 boys, or 60 per cent of those investigated, were from 16 to 19 years of age. No effort was made on the part of the investigators to select boys below 16, or boys above 20. On the other hand, they were definitely instructed to secure as many cases as possible of boys from 16 to 19 years of age. All of the boys lived when interviewed either in Sioux City or Des Moines. However, they had not always lived in these places, as is shown by a study of the location of the schools which they last attended.

LOCATION OF THE SCHOOLS WHICH THE BOYS LAST ATTENDED

More than forty per cent of the boys came from schools located outside of the city in which they were living when interviewed.

Four hundred and fifty-five (52 per cent) came from 62 different schools located in Des Moines; 150 (17 per cent) came from schools located in 107 cities and towns in Iowa outside of Des Moines and Sioux City; 117 (13 per cent) came from 27 different States other than Iowa; 41 (nearly 5 per cent) came from 8 different foreign countries. The remaining boys came from schools located in or near Sioux City.

These facts are rather significant to those interested in training boys for the various vocations. If these figures are accurate, *40 per cent of the boys at work in the various pursuits receive their training in schools located outside of the cities in which they are working.* Boys trained in the various vocations in the public schools of a city would come in competition with boys coming into the city from other cities and states of the country. In other words, the city would not be able to train all of the boys for any kind of pursuit without a compulsory system of continuation school attendance, which would operate across not only the boys leaving the schools of that city but also across the boys leaving schools located in other cities and coming to that city.

AGE AND GRADE AT WHICH THE BOYS LEFT SCHOOL

Each boy was questioned as to the grade he was in at the time he left school. While the answers received in this way are not so reliable as may be desired, they are sufficient to indicate the general tendency of boys of this class. It would be much better to get their records from the schools which they left, but this was impossible, inasmuch as many of them left schools located outside of Des Moines and Sioux City.

From our data it may be seen that relatively few of the boys leave school before they are fourteen years old and before they have finished the fifth grade. Table No. I gives the data for the entire group. Three boys left school while in the first grade; one of these boys was six years old, one fifteen, and one sixteen. Only sixty-four boys left school before completing the fifth grade. Thirty-eight per cent left school before finishing the seventh grade and sixty-one per cent before finishing the eighth grade. The present child-labor law in Iowa requires that children must be fourteen years of age before they may legally quit school. According to this table 103 of the 826 boys studied were

TABLE NO. I. THE AGE AT WHICH THE BOYS LEFT SCHOOL

Leaving Age	Grade Left								High School				Totals
	1st	2d	3d	4th	5th	6th	7th	8th	1st	2d	3d	4th	
6	1												1
7				1									1
8													
9				1									1
10			1	1	3								5
11			1	1	1	1		1		1			6
12				1	2	9	3	2					17
13				5	6	20	18	21	1				71
14				8	14	37	45	76	15	3			198
15	1			3	7	33	40	68	35	20	4		211
16	1			1	2	15	17	59	26	23	11		155
17					1	6	9	36	17	11	11	9	100
18					1		3	11	5	8	10	10	48
19							1	1	1	2	2	3	10
20								1					1
21													
22										1			1
Totals	3		2	22	37	121	136	276	100	69	38	22	826

under fourteen. However, the reader should remember that the majority of the boys had, at the time of the investigation, been out of school more than three years, and the child-labor law was not so well enforced three years ago as at the present time. Furthermore, upon checking the records of these boys we find that nearly ninety per cent of the violations of the age-requirement are made by boys coming to the two cities studied from other cities in the state and from other states in the union. These boys leave schools located in small towns and migrate to large cities where they carry on a more or less vicarious existence, avoiding further school attendance.

It is apparent from these figures that *workers in juvenile occupations come largely from the sixth, seventh and eighth grades of the public schools.* It is also evident that most of them leave school at about the time when they are 14, 15, or 16 years of age.

..THE VARIOUS REASONS THE BOYS STATE FOR LEAVING SCHOOL

To determine exactly the reason or reasons why a boy leaves school is very difficult. Some argue that boys leave school because they have to work and earn, while others argue that they are dis-

satisfied with the kind of schooling that is offered them. In interviewing the boys an attempt was made to find out the reasons that they give for leaving school.

Case No. 457 said, "I came here from England at the age of eleven. I started in school in Des Moines where they put me in the fourth grade. I found the work in the fourth grade too easy and asked to be promoted, but they refused to promote me, and so I left school and went to work."

Case No. 165 gives quite another reason. He says: "I completed the eighth grade in the country school where my folks lived. There was no high school within twelve miles. If there had been, I am sure I would have gone to school. I went to work for my father in a freight depot and have been working ever since."

Case No. 570 related as his experience the following: "I did not like school as I wanted to do tool work or follow some commercial line. And as soon as I became fourteen years of age I quit and took a three months' course in a business college. I was in the sixth grade when I left school, but that did not seem to make any difference to the business college."

Case No. 782 suffered from stuttering and said: "I felt neglected and very frequently ashamed, as the children laughed at me. However, I could have continued in school and probably would have, if an attractive position as a clerk had not been offered me at the time."

The above reasons for leaving school are somewhat exceptional, but they show something of the variety of motives actuating boys at the time of leaving school. A tabulation of all the reasons includes the following:

I. Necessity	
"Had to work"	128
"Sickness or death of parents"	40
"Earnings necessary to family support"	43
"Self-support necessary"	33
"Help needed at home"	16
"To earn money for education of self or relative"	1
"Father insisted that he quit"	1
II. Child dissatisfied with school	
"Tired of school"	81
"Disliked school life"	104

	"Disliked teacher"	26
	"Disliked study or some particular subject"	15
	"School work too hard; could not learn"	20
	"Not promoted; failed"	17
	"Expelled or had trouble"	20
	"Too big for class"	2
	"Had enough school"	8
	"Irregular attendance"	3
III.	*Preference for work*	
	"Preferred work to school"	116
	"Wanted spending money"	29
	"Wanted to earn money"	9
IV.	*Other causes*	
	'Wanted to learn trade or business"	23
	"Moved away or came to America"	26
	"Wanted to travel"	6
	"Had completed school course; no other school near"	5
	"Ran away from home"	4
	"Ill health"	24
	"Wanted to go to business college"	3
	"Trouble in the family"	9
	"Father thought I was too old"	2
	"Liked tool work"	2
	"No particular reason; just left"	1

The thirty-odd reasons given in the preceding list are reducible to three:

1. Either the earnings of the boys are necessary, or their help is desired to support the family. This probably accounts for one third of the withdrawals.

2. The second large factor is the boys' dissatisfaction with school. When they reach the age of fourteen many of them seem to be in an indifferent frame of mind toward further schooling. The routine of the schoolroom is too coercive to their growing sense of independence. They think they ought to be allowed to do about as they desire, and too frequently their parents agree with them. No general theory fits every case, and probably no child leaves school for any one reason; his reason for leaving is a complex of causes, no one of which is in itself sufficient to explain his withdrawal. *If we could go behind these figures*

we would probably find that the chief reason for dropping out of school can be traced directly to a lack of parental control and interest. Many parents seem to be in an indifferent frame of mind about their children's schooling after the children have reached the legal age. Frequently parents of foreign children sacrifice the future education of the children to the immediate wants of the family. A feeling is common among such parents that the child should be put to work at the earliest possible moment and his earnings be turned into the family income. They are disposed to cut short the child's school days for entirely insufficient causes.

3. The third general cause for boys' leaving school is not so much necessity or dissatisfaction as it is their preference for work. They want spending money, or, more serious still, they want to do something "worth while;" something big physically or materially that appeals to their growing sense of power. Furthermore they do not think that schooling is of financial value to them. They look upon it as a lazy boy's occupation. Case No. 537 said: "Schooling does not help a fellow make money. I have to make my own living and I can not afford to go to school." In case No. 461, the father told the boy: "There is no money in going to school. You had better get to work." About 20 per cent of the boys left for some one of these reasons.

In a few cases the family moves or the boy is sick for a few days, or he desires to travel. Occasionally there is trouble in the family, as in the case of one boy whose step-father continually punished him for insufficient reasons. A few of the boys do not like the social life of the high school, especially children from the poor and foreign classes. One boy said, "The high school is for the rich people and not for poor boys." Apparently these social factors do not account for many of the withdrawals.

HOW LONG ARE THE BOYS IDLE IMMEDIATELY AFTER LEAVING SCHOOL?

A few of the boys after leaving school remain idle for some time before going to work. In order to find out just how much time is wasted in this way, the investigators were instructed to ask each boy to state the length of time he was idle between leaving school and securing his first job. Of the boys who gave satisfactory answers to the questions 634 said they went to work im-

mediately; 115 were idle less than 1 month; 25 from 1 to 2 months; 11 from 2 to 3 months; 10 from 3 to 4 months; 4 from 4 to 5 months; 8 from 5 to 6 months; 14 from 6 months to 1 year; 6 between 1 and 1½ years; and 2 for 2 years and over.

From these figures it will be seen that about *75 per cent of the boys went to work immediately.* Of the remaining 25 per cent over half of them were idle less than one month. One reason why children are idle so little between leaving school and taking their first job is probably that they have the job before they leave school, and that induces them to quit. If the boy is fourteen years of age, has little spending money, and no one at home to insist upon his going to school, it is pretty hard for him to resist a lucrative blind-alley job.

HOW THE BOYS FIND THEIR JOBS

Another of the questions asked each boy was, "How did you find your job?" An answer was secured for each job they had had since leaving school. The purpose of the question was to discover how much assistance they received in finding positions, and from what sources. The usual method of "selling" one's labor is to hawk it from door to door. A common method of securing employees is to put out a sign that hawkers may apply for work. Usually in this country the burden of finding employment falls upon the individual. The cities and states of America do not have well-organized systems of employment bureaus for the purpose of adjusting either juvenile or adult laborer to employer. The boys as they leave school to go to work are for the most part thrown upon their own resources, as is shown by the results of this investigation. More than 85 per cent of the jobs were found by the boys hawking for them. The remaining jobs were found in the following way:

92 by answering an advertisement;
57 through assistance of parents;
55 through assistance of friends;
1 through teacher in public school;
1 by being asked by an employer.

Apparently the teacher does not attempt to assist these boys in securing work. Nor are their friends, relatives and parents of very great assistance. The majority of the boys find work for themselves. It seemed not to be considered the business of any

social agency other than the public school accurately to inform such boys concerning the occupations open to them. No literature is handed them concerning desirable vocations, and apparently no advice is offered them regarding unskilled, semiskilled, or highly skilled employments. They are not told about the "blind-alley" jobs. No one looks after them systematically, following them from the door of the schoolroom into the jobs which necessity or choice causes them to accept. They find their own jobs and take the jobs that they can find quickly. These boys studied are therefore fair examples of what happens in the absence of vocational guidance. What might have happened if careful vocational guidance and supervision had been provided can only be inferred. It is safe to guess that the percentage of those entering and remaining in unskilled and low-grade skilled occupations would have been greatly decreased, and also that the "fetching and carrying" occupations—in which the chief duty is to wait upon the casual needs of others—would have been avoided to a much greater degree. Some one might study an equal number of children leaving schools of a city where vocational guidance is provided and contrast the two groups. Such a contrast would measure, to some degree at least, the kind and value of the guidance offered. It would then be possible to know how much a city could afford to spend in instituting such guidance. At present we have a feeling that guidance is valuable, but are unable to say to what degree.

NUMBER OF BOYS WHO HAVE COMPLETED ONE OR MORE JOBS SINCE LEAVING SCHOOL

A careful study was made of the number of boys who had concluded one or more jobs since leaving school. A job was considered "concluded" if the boy had entered and left it. A typical working record of one or two of the boys may be of interest at this point.

Case No. 51 was last in the eighth grade, and was 15 years old at the time he left school. He started to work in a brick yard at $6 a week, and at the end of one year was getting $9 a week. He left the job because he thought it was "too hard." Within one week he found work in a hosiery mill where he stayed for 2 years, starting at $4 a week and receiving at the end of 2 years $12 a week. He gave as his reason for leaving the job,

"tired of it." He then secured work on the fair grounds for 4 months at $10 a week, but the job "came to an end" and he went to work as a helper in a tin-shop where he remained for 5 months, getting $7 a week. He left it "to learn a trade," and started in assisting a brick mason at $6 a week. At the end of the year he was getting $14 a week, but was unhappy and left it "for no very good reason; just because he wanted a change," and went back to work on the fair grounds for $7 a week and board. At the time of the investigation he was a tender to a brick-mason at $12 a week, and said he desired to become a brick-mason. He is now 20 years old, and has had in all 7 different jobs in five years.

A study of all the cases gives the following results:

228 boys had concluded 1 job since leaving school
214 boys had concluded 2 jobs since leaving school
169 boys had concluded 3 jobs since leaving school
94 boys had concluded 4 jobs since leaving school
58 boys had concluded 5 jobs since leaving school
31 boys had concluded 6 jobs since leaving school
19 boys had concluded 7 jobs since leaving school
11 boys had concluded 8 jobs since leaving school
13 boys had concluded 9 jobs since leaving school

Two boys had concluded as many as 12 jobs each. These boys belonged to that shiftless class that is continually moving from place to place and job to job in search of excitement. *The average boy passes through 3 jobs in 2 years.* Such figures emphasize the instability of juvenile occupations. The boys do not remain in one occupation for a very long period of time. *The work that they are in is unsatisfactory and does not succeed in holding them.*

LENGTH OF TIME THE BOYS SPENT IN THE JOBS

A few of the boys had spent over three years on a job. No job is included in these figures which was not concluded at the time of the investigation. A complete analysis is shown as follows:

In 17 jobs the boys spent less than 1 month
In 37 jobs the boys spent between 1 and 2 months
In 105 jobs the boys spent between 2 and 3 months
In 138 jobs the boys spent between 3 and 4 months

In 133 jobs the boys spent between 4 and 5 months
In 102 jobs the boys spent between 5 and 6 months
In 147 jobs the boys spent between 6 and 7 months
In 90 jobs the boys spent between 7 and 8 months
In 69 jobs the boys spent between 8 and 9 months
In 85 jobs the boys spent between 9 and 10 months
In 69 jobs the boys spent between 10 and 11 months
In 25 jobs the boys spent between 11 and 12 months
In 222 jobs the boys spent between 1 and 1½ years
In 110 jobs the boys spent between 1½ and 2 years
In 68 jobs the boys spent between 2 and 2½ years
In 25 jobs the boys spent between 2½ and 3 years
In 27 jobs the boys spent between 3 and 3½ years
In 3 jobs the boys spent between 3½ and 4 years
In 30 jobs the boys spent between 4 years and over

Of the total number investigated, 218 had not concluded their first job at the time of the investigation, and, therefore, are not included in the above figures. The average length of the time for a job is shown to be less than over a year. The boys seem to shift a great deal. Some of the reasons for changes are given in the following section.

REASONS THE BOYS GIVE FOR CHANGING JOBS

It is impossible to state the exact number of boys leaving jobs for any particular reason. Some of them "wanted better pay," or "to find a better job." Others did not like the work they were in and wanted a change." Another boy said he "wanted inside work." About 20 per cent of them "lost their jobs," 15 per cent found their jobs "too hard." a few, perhaps 7 per cent, were forced to leave the work they were in because "the business failed." One boy was working at night and left it because he "wanted day work." Another boy who was working on a punching press in a machine shop was injured slightly, and after recovering did not go back.

Reasons that are given many times are: "Laid off;" "was let out;" "found the work too hard;" "got fired;" "had trouble;" "did not like it;" "moved away;" or "came to America."

Reasons that occur rarely are: "Little chance for improvement;" "no future;" "wanted to learn a trade;" "was ad-

vanced or promoted;'' ''left the work because it wasn't steady.''

The one striking note through all these reasons is the desire on the part of the boys for better wages. *They seem to think more of an increase in salary than they do of an advancement in skill.* For this they are not entirely to blame, as they receive little or no advice to the contrary. In their minds the boy who is getting the best wages is the most successful boy. Their idea of success is expressed in financial terms. In a later section more definite evidence is given for this conclusion.

THE BEGINNING WAGES OF THE BOYS

One of the most interesting parts of the study pertains to the wages received by the boys when they begin work. The facts are as follows:

4	boys	received	nothing	a week
7	boys	received	$1	a week
22	boys	received	$2	a week
87	boys	received	$3	a week
128	boys	received	$4	a week
124	boys	received	$5	a week
111	boys	received	$6	a week
94	boys	received	$7	a week
64	boys	received	$8	a week
47	boys	received	$9	a week
54	boys	received	$10	a week
6	boys	received	$11	a week
40	boys	received	$12	a week
4	boys	received	$13	a week
6	boys	received	$14	a week
22	boys	received	$15	a week
5	boys	received	$16	a week
2	boys	received	$17	a week
7	boys	received	$18	a week
2	boys	received	$19	a week
1	boy	received	$20	a week

The range is from nothing to $20 a week. The average is about $5.50 a week. *There are as many who received $5.50 or less a week as there are boys who receive more than $5.50 a week.* If we leave out of consideration the first and last 25 per cent of the

boys, we find that the middle 50 per cent received a weekly wage of from $4.50 to $7.

The boys working in coal-mines are of special interest. This includes 37 boys. Their average age on beginning work was found to be 14 years and 6 months. Their beginning wages were $12 a week. However, some of the boys received as low as $6, and others as high as $20 a week. One boy worked for 3 weeks in this occupation, while another stayed in it for 11 years. The reasons the boys give for leaving coal-mining are interesting. Four "got hurt;" in the case of 3 the "parents objected;" four said they "didn't like it;" one "got fired;" three "wanted to learn a trade."

The Mine Workers' Union has had a great deal to do with the elimination of boys from mining occupations. Practically no boys under sixteen are now used to drive mules. The number of trapper-boys has been greatly reduced by many of the miners' adopting overhead systems of ventilation that make trapdoors unnecessary. The fact that the mine operators must assume all risk for boys under sixteen has also tended toward their elimination.

CORRELATIONS BETWEEN LEAVING GRADE AND BEGINNING WAGE

The question is sometimes asked, Do the boys who leave an advanced grade receive a higher beginning wage than those who leave a lower grade of the public school? This question is answered by the figures in Table No. II. The wages and grade were known for 812 cases.

Not enough boys left grades below the fifth to make our figures worth while. The average (median) wages of the boys leaving each grade above the fourth were as follows:

$4.25 a week for those leaving the 5th grade.
4.50 a week for those leaving the 6th grade.
5.20 a week for those leaving the 7th grade.
5.60 a week for those leaving the 8th grade.
6.00 a week for those leaving the 1st year high school.
6.60 a week for those leaving the 2nd year high school.
7.60 a week for those leaving the 3rd year high school.
7.50 a week for those leaving the 4th year high school.

If one argues that schooling alone is the reason for any increase

TABLE NO. II. CORRELATION BETWEEN LEAVING GRADE AND BEGINNING WAGE

Average Weekly Wage	Grade								High School				
	1st	2d	3d	4th	5th	6th	7th	8th	1st	2d	3d	4th	Total
$1.00 and under					1		4	1					6
$1.01 to $2.00			1	1	1	5	1	4	4	1			18
$2.01 to $3.00				4	6	14	15	26	6	4	2		77
$3.01 to $4.00	1			4	10	30	19	36	13	6	2		121
$4.01 to $5.00				2	3	17	25	45	11	9	5	1	118
$5.01 to $6.00	1			1	3	18	19	37	15	11	2	3	110
$6.01 to $7.00			1	3	6	6	24	30	8	8	6		92
$7.01 to $8.00	1			2	1	8	8	18	10	6	1	7	62
$8.01 to $9.00						4	8	19	10	2	4	2	49
$9.01 to $10.00					2	7	1	27	11	6	5	1	60
$10.01 to $11.00				1	1	2		1		1			6
$11.01 to $12.00				1	1	1	5	17	5	7	3	2	42
$12.01 to $13.00					1					4			5
$13.01 to$14.00				1		1		2	1				5
$14.01 to $15.00			1	1	1	3	1	7	2	2	2	1	21
$15.01 to $16.00				1		1			1	2	1		6
$16.01 to $17.00								2					2
$17.01 to $18.00				1				2		3		1	7
$18.01 to $19.00						1				1			2
$19.01 to $20.00							1	1	1				3
Totals	3		3	23	37	118	131	275	98	73	33	18	812

in wage he may conclude on the basis of these figures that the average boy leaving the junior or senior year of high school gets about $1 more a week than the average boy leaving the freshman or sophomore year, and that the average boy leaving the freshman or sophomore year gets about $1 more than the boy leaving the sixth, seventh, or eighth grade. This assumption is probably wrong. *We can not be sure that the increase in amount of schooling is the real reason for the increase in wage.* Age probably is a much more important factor than grade in determining the beginning wage. In fact by comparing the beginning wage of seventeen year old boys who leave one grade with seventeen-year old boys who leave another grade we find a very slight increase.

All of the boys who were 17 years old when they left school were studied to see if those who left advanced grades received higher wages than those who left lower grades. The average wage for each group of seventeen-year old boys was as follows:

4	boys leaving the	6th grade	averaged $6.00
9	boys leaving the	7th grade	averaged 6.00
38	boys leaving the	8th grade	averaged 8.00
14	boys leaving the	9th grade	averaged 8.00
13	boys leaving the	10th grade	averaged 7.00
14	boys leaving the	11th grade	averaged 6.50
4	boys leaving the	12th grade	averaged 7.00

Boys of the same age leaving different grades get about the same beginning wages.

CORRELATION BETWEEN LEAVING AGE AND BEGINNING WAGE

The correlation between the age at which these boys left school, and the average weekly wage which they received when they began is set forth in Table No. III.

TABLE NO. III. CORRELATION BETWEEN LEAVING AGE AND BEGINNING WAGE

Beginning wage	Ages 6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total
$1 and under							1		1	3			1					6
$1.01 to $2						1	1	2	11	2		1						18
$2.01 to $3		1			2		2	20	15	17	11	5	2	1				76
$3.01 to $4	1				1	1	3	12	50	30	14	7	1					120
$4.01 to $5					1		2	12	29	42	22	5	5					118
$5.01 to $6							1	5	26	36	26	13	4					111
$6.01 to $7					1	1	2	7	25	22	19	9	7					93
$7.01 to $8					1		1	3	8	17	15	9	5	2	1			62
$8.01 to $9							4	3	7	12	6	13	3	1				49
$9.01 to $10							1	2	8	9	21	9	8	2				60
$10.01 to $11								1	2	1	1		1					6
$11.01 to $12									4	8	14	9	6					41
$12.01 to $13										1		4	2					7
$13.01 to $14								2	1		1		1					5
$14.01 to $15						1		1	3	4	3	8	1				1	22
$15.01 to $16									1	2	2							5
$16.01 to $17											1				1			2
$17.01 to $18								1	1	1	1	1	1	1				7
$18.01 to $19										1			1					2
$19.01 to $20										3								3
Totals	1	1			6	4	18	71	192	211	157	93	49	7	2		1	813

Table No. III should be read as follows:

One 6 year old boy received from $3 to $4.

One 7 year old boy received from $2 to $3, etc.

Very few boys went to work before they were fourteen years of age, and very few received less than $2 a week. In fact there are so few cases of boys under twelve years of age that comparisons are hardly reliable. The same is true of boys more than nineteen years of age. But between the ages of twelve and eighteen sufficient cases are available to justify comparison.

The correlations between leaving ages and beginning wages are as follows:

$4.10 a week for boys 13 years of age.
4.90 a week for boys 14 years of age.
4.30 a week for boys 15 years of age.
5.25 a week for boys 16 years of age.
7.60 a week for boys 17 years of age.
8.80 a week for boys 18 years of age

According to these figures the older the boy when he begins work the higher his wage. Between boys 13, 14, and 15 years of age there is little difference. But after the fifteenth year there is a remarkable increase; $1 a week from 15 to 16, nearly $1.50 from 16 to 17, and more than $1 from 17 to 18.

The amount of wages received by boys 13, 14, and 15 years of age would hardly justify their withdrawal from school. The report of the United States Government claims that at least $2 a week is necessary for the self-maintenance of a person more than 10 years of age. Using this figure as a minimum standard, it will be seen that the thirteen-year old boys are making about twice as much as is absolutely necessary for existence. However, the figures in the government report are considered by many economists as very low. It would certainly be difficult for a Des Moines or Sioux City boy to live and save if receiving the minimum weekly wage above indicated.

CORRELATION BETWEEN WAGES AND YEARS OF EXPERIENCE

Additional data upon the question raised in the preceding section are furnished by a study of the relationship that exists between the increase in weekly wages and years of experience. One would naturally expect a boy who has been out of school 3 years to get a higher wage than a boy who has been out of school 1 year, a boy who has been out of school 5 years a higher wage than a

boy who has been out of school 2 years. Just how much experience counts is, however, a much more difficult question to answer. In Table No. IV. the figures across the top refer to years of ex-

TABLE NO. IV. CORRELATION BETWEEN WAGES AND YEARS OF EXPERIENCE

Average weekly wages	Years of Experience															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Totals
$1 and under																
$1.01 to $2	5	2			1											8
$2.01 to $3	11	7	2									1				21
$3.01 to $4	37	13	2	2	2	1	1									58
$4.01 to $5	36	23	1	3	1			1								65
$5.01 to $6	26	19	16	4	2											67
$6.01 to $7	16	30	12	7	4	1	2		1	1						74
$7.01 to $8	15	20	14	20	6	3	1		2							81
$8.01 to $9	13	26	21	10	9	2	3	4		1						89
$9.01 to $10	7	5	6	3	4	2	2									29
$10.01 to $11	8	16	18	16	14	13	3	1	1	1	1					92
$11.01 to $12	2	3	1	3	6	1	3				1				1	21
$12.01 to $13	2	4	5	4	5	4	2		1							27
$13.01 to $14	8	10	6	16	12	10	3	3	2	1		1				72
$14.01 to $15	2	3	1	4	1	2	1	2								16
$15.01 to $16	1		2	4	3	1	1									12
$16.01 to $17	2	3	2	5	8	5	1	2	2	3						33
$17.01 to $18	1	1		1		1	1									5
$18.01 to $19	2	3	2	3	3	4	2	1	1	1						22
$19.01 to $20				3		1										4
$20.01 to $21			1			1	2									4
$21.01 to $22									1			1				2
$22.01 to $23				1		1				1						3
$23.01 to $24					1		2	1								4
$24.01 to $25						1										1
$25.01 to $26					2				1							3
$26.01 to $27					1	1										2
$27.01 to $28																
$28.01 to $29				1												1
$29.01 to $30																
$30.01 to $31																
$31.01 to $32																
$32.01 to $33					1											1
$33.01 to $34																
$34.01 to $35																
$35.01 to $36																
$36.01 to $37			1													1
Totals	194	188	113	110	86	55	30	15	12	9	2	3			1	818

perience, such as 1 year, 2 years, 3 years, 4 years, etc. By "years of experience" is meant that the boy had been out of school and at work at least 1 year, 2 years, 3 years, etc. The figures down the left-hand side of the page refer to the average weekly wages recived during the year. For example: 5 boys had been out of school 1 year and had received an average weekly wage of from $1.01 to $2 a week; 11 boys had been out of school 1 year and had received an average wage of from $2 to $3 a week, etc., for the remainder of the table.

From Table No. IV. we may draw the following conclusions with regard to the financial value of different years of experience. The weekly wages received are as follows:

$ 5.30 a week during the 1st year of experience
6.05 a week during the 2nd year of experience
8.50 a week during the 3rd year of experience
10.33 a week during the 4th year of experience
10.00 a week during the 5th year of experience
11.00 a week during the 6th year of experience
11.66 a week during the 7th year of experience
14.30 a week during the 8th year of experience
14.50 a week during the 9th year of experience

That *experience is the chief factor in determining the wages of these boys is very evident.* The boys with 2 years of experience received almost $1 more than those with 1 year experience, while those with 3 years of experience received over $3 more per week. Those with 4 years of experince have doubled their wages. They do not reach a level until about the 8th or ninth year of experience, and are then receiving over $14 a week, and are more than 21 years of age.

It would be interesting to compare these figures with figures on an equal number of cases of boys graduating from high school, but such figures are not at present available. How much more money high school graduates in Iowa would receive at the end of 6 or 9 years of experience can only be inferred. Perhaps many of the conclusions with regard to the value of school trainingt which in the last few years we have been telling high school and grammar school boys are not as acurate as we have thought. Before we can present to boys the actual facts further careful study must be made along these lines.

AVERAGE ANNUAL INCREASE IN WAGES PER YEARS OF EXPERIENCE

In order to find out just how rapidly the boys increased in wages over their initial wage a study was made of their average annual increase. For example, Case No. 204 had been out of school 5 years. He received a wage of $3.50 to start with and was getting a wage of $10 at the time of the investigation, which was after 5 years of experience. That is he had increased $6.50 in 5 years, which would give him an average annual increase of $1.30 a week. He would appear in Table No. V under column marked 5 years, and opposite the left hand column marked $1.01 to $1.50. The other cases were studied in the same way.

TABLE NO. V. AVERAGE ANNUAL INCREASE IN WAGES FOR YEARS OF EXPERIENCE

Average increase in weekly wages	Number of years of experience																Totals
	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
No increase	13	29	16	4	4	6	1			1							74
Under 50 cents	2	5	11	9	10	8	6	6	3	1							61
$$ .51 to $1.00	4	38	12	22	17	9	9	3	5	1	4		1	1	1		127
$1.01 to $1.50	1	19	25	18	21	9	10	4	1	1	5						114
$1.51 to $2.00	5	23	28	18	12	11	10	4	3	4	1						119
$2.01 to $2.50	1	11	14	5	7	10	6	4	1								59
$2.51 to $3.00	1	18	11	7	7	2	3										49
$3.01 to $3.50		2	8	2	9	3											24
$3.51 to $4.00	3	5	3	6	4	3	2										26
$4.01 to $4.50		6	2			2											10
$4.51 to $5.00	1	6	1	1							1						10
$5.01 to $6.00	3	2	1														6
$6.01 to $7.00		2	1														3
$7.01 to $8.00		5															5
$8.01 to $9.00						1											1
$9.01 to $10.00			1														1
$10.01 to $11.00		1		1			1										3
$11.01 to $12.00	1																1
Totals	35	172	134	93	81	64	48	21	13	8	11		1	1	1		683

From the foregoing table it may be seen that 74 cases had not made any annual increase in wages. The others had increased in wages from less than 50 cents to $12. a week. The boys average an increase of a little less than $2 a week for each year out up to and including the ninth year. This would seem to be a fairly good rate of progress. The cases from which no data could be secured are not included in this table.

THE DIFFERENT OCCUPATIONS IN WHICH THE BOYS WERE ENGAGED

It is very difficult to determine the exact number of different lines of work in which these boys were engaged. In fact there is no standard to follow in determining what is and what is not an occupation. A boy may be working at carpentry work in making brooms in a broom-factory, or he may be working at carpentry work in a cabinet-maker's shop. In the first case he would be apt to call himself a "scraper," and in the second a carpenter's helper. The same thing occurs in many different lines of work. It becomes necessary, therefore, to group the occupations, and that has been done in this section. The occupations are then studied with regard to their popularity among boy workers. For example, as will be seen in the lists which follow, 59 different boys worked at one time or another in occupations which are listed under the heading "printers". For convenience in considering the pursuits that boys are likely to get into, the list has been divided. In the first list occur all the occupations in which at least ten of the boys had at some time worked. In the second list all occupations in which less than ten boys at any time worked.

THE THIRTY-THREE MOST POPULAR PURSUITS AMONG IOWA BOYS

Helpers and general workers	376
Drivers (delivery, transfer, teamsters, etc.)	256
Clerks (shipping, stock, sales, etc.)	233
Errand and messenger boys	157
Farm hands (gardeners, dairymen, etc)	130
Wrappers and packers	79
Apprentices (all occupations)	69
Printers (pressman, type and linotype, etc.)	59
Office boys	57
Bill posters and peddlers	49
Porters, pages, hall and bell boys	48
Hosiery mill operatives	39
R. R. hands (brakeman, section, freight, etc.)	25
Elevator boys	22
Cement workers (mixers, feeders, carriers, etc.)	22

Electrical workers (wiring, lineman, switchboard, etc.)	21
Water boys	21
Bookkeepers, stenographers, and time keepers	21
Drafters and engravers	20
Machinists	20
Waiters	20
Agents and collectors	18
Tailors	18
Cutters (glass, shoe, paper, etc.)	15
Soda fountain boys	15
Painters and decorators	14
Cigar makers	14
Labelers and letter addressers	11
Pressers (clothes)	11
Bootblacks	11
Checkers, sorters, and ticket takers	11
Miners	11
Cash boys	10

THE SEVENTY EIGHT OCCUPATIONS NOT SO POPULAR

Butchers	9	Upholsterers	5
Factory workers (n.o.s.)	9	Journeymen	5
Foremen and managers	9	Optical workers (mounting and grinding	4
Telegraphers	8	Janitors	4
Musicians (playing, singing, tuning)	8	Cooks	4
Sign painters, stencilers and markers	8	Horsetraders and hostlers	4
Chauffeurs	8	Bakers	4
Box factory workers	7	Carpenters	4
Bottle washers	7	Solicitors	3
Tinners	6	Weavers (rug and basket)	3
Moulders	6	Contractors	3
Firemen (fire dept. and engine)	6	Inspectors	3
Pin setter and ball racker	6	Bottlers	3
Candy makers and mixers	5	Riveters	3
Polishers	5	Caddies, guides, jockeys	3
		Bricklayers	3

Fowl pickers	3	Shearer	1
Lathe workers	3	Corn husker	1
Mail clerks	3	Paperer	1
Lumbermen	3	Oiler	1
Tool makers	3	Boatman	1
Operators (motion pictures)	2	Coal Shoveler	1
Engineers (r.r.)	2	Stone cutter	1
Ice men	2	Vulcanizer	1
Actors	2	Bar tender	1
Cashiers	2	Sailor	1
Brick and tile dressers	2	Ranger	1
Blacksmiths	2	Coat maker	1
Book binders	2	Tramp	1
Wipers	2	Button maker	1
Furriers	2	Glazier	1
Fruit pickers	2	Art glass cementer	1
Pattern makers	2	Glove trimmer	1
Boiler makers	2	Florist	1
Barbers	2	Dye setter	1
Floor walker	1	Toy maker	1
Picture framer	1	Harness maker	1
Syrup maker	1	Reporter	1
		Steam fitter	1

Relatively few of the pursuits in the above list are skilled, though in many of them there is some opportunity for advancement. A rough estimate would seem to indicate that from 75 to 80 per cent of the boys were engaged in unskilled or semi-skilled pursuits. By unskilled and semi-skilled pursuits is here meant a pursuit in which the operations to be performed are relatively few in number, simple in character, and for the most part uncoordinated with operations which precede and follow. Most of these operations can be easily and quickly learned, and the grade of ability and the responsibility required is relatively low.

It may be concluded from these figures that the most common method followed by boys in learning a vocation is a "trial and success" method. They go to work and try this or that pursuit to see whether or not they are suited to it or it is suited to them.

It may be contended that this is a very wasteful method and undoubtedly the contention can be supported by considerable

evidence. On the other hand as the present system of industry is organized no adequate substitute has as yet been provided. Nor is it proved that vocational education as introduced in other cities in this country provides a totally adequate substitute.

CORRELATION BETWEEN PREVIOUS WORK AND FUTURE AMBITION

The last question that the investigators were instructed to ask of each boy concerned the boy's ambition. It was expected that many of them would be satisfied with the line of work in which they were or had been engaged, while others would desire to enter other pursuits. In this connection special cases may be interesting.

Case No. 11 began work as a clerk at $8 a week, and after 5 years of experience was a clerk receiving $11 a week. He had no desire to change his occupation at the time of the investigation.

Case No. 18, on the other hand, began as a coal digger at $14 a week and left it to enter an automobile shop at a lower weekly wage, $6, where the opportunity for advancement was much greater and the work of a more skilled character. He expressed himself when interviewed as ambitious to become an expert mechanic.

Case No. 55 left the eighth grade and began work at the age of 15 as cook at $12.50 a week and continued in the same position and at the same wage for 5 years. During that time he completed a course in a correspondence school in draftsmanship with the intention of becoming a draftsman.

Case No. 117 came to Des Moines from Missouri. While in Missouri he finished the first grade of the public school when he was 6 years old. His father then took him out of school and put him out to work on a farm where for 7 years he labored for his board and lodging and spending money. When he was 13 years old he came to Des Moines and became a coal-digger at $12 a week. He remained in this occupation for 3 years and at the end of that time became a cattle-helper in the stock yard at $6 per week and board. After 15 years of experience he is now a truck-farm driver receiving $9 per week and board. He can read and write poorly and has no ambition for any particular pursuit.

The above cases exhibit the variety of vocational experience through which boys pass. According to our data of the entire group of boys studied 628 (75 per cent) had an ambition and 216 (25 per cent) had no preference for any particular occupation; that is, they were satisfied with what they were doing or at least could not, at the time of the investigation, state anything that they would rather do.

A boy was considered as having an ambition if he expressed a desire to prepare for and enter any particular occupation. A boy whose ambition for the future was along exactly the same line of work as that in which he had been engaged for the majority of the time since leaving school was classed in the group whose previous work and future ambition correlated almost perfectly. In this group must be placed 35 per cent of the 628 boys having an ambition.

A boy who had been engaged but a very small portion of his time since leaving school in a line which corresponded with his ambition was classed in the group whose previous work and future ambition correlated but slightly. This group includes 23 per cent of the ambitious boys.

The work of a boy was classed as not correlating with his ambition when he desired to enter a pursuit in which he had had absolutely no experience. This group includes 255 cases, 42 per cent of those having an ambition.

FINANCIAL PROGRESS IN RELATION TO FUTURE AMBITION

The records of the boys who had an ambition were studied with regard to whether or not they had made financial progress since leaving school. By financial progress is here meant any increase no matter how slight in weekly wages. The increase is considered without regard to the age of the boy or the amount of experience which he had received.

Of the 628 boys who had a definite ambition 501 (79 per cent) had made some financial progress since leaving school, and 21 per cent had failed to make any financial progress. Of the 210 boys who had no definite ambition 188 (82 per cent) had made financial progress, and 18 per cent had failed to make any financial progress. There is practically no difference between these two groups with respect to this point. On the other hand 93 per

cent of the ambitious boys whose previous work correlated almost perfectly with their future ambition have made financial progress, while only about 75 per cent of the boys whose previous work and future ambition correlated but slightly or not at all have made financial progress. From these figures it appears that *proportionally more boys who are working along lines in which they desire to continue are financially successful than those whose ambitions lie outside of the field of their previous work.*

FINANCIAL PROGRESS IN RELATION TO PROGRESS TOWARD SKILL

A comparative study of the ambitious and the unambitious groups was made to determine the financial progress and the relative amount of progress which the two groups had made toward skill. It was recognized that there are two ways of making progress toward skill: first, by changing from an unskilled occupation, as that of office or messenger-boy, to a more skilled occupation, as that of clerk or apprentice; second by making progress in skill while remaining in a given occupation, as in printing. In this study the latter was determined by a consideration of the time spent in the occupation and the increase of wages shown as well as by the character of the occupation itself.

In general two groups were easily distinguishable, one making noted progress toward skill and one not making any progress. After some deliberation it was decided that credit would be given for noted progress toward skill only in case the record showed continuous employment for three years or more in one trade or position; for example, three years as a brick-layer or machinist, etc. About 17 per cent of the boys with an ambition had made noted progress toward skill. Only 12 per cent of the group without an ambition had made noted progress toward skill.

Credit for no progress toward skill was given to errand boys, day laborers, farm workers or helpers in any trade, factory positions or business for less than one year. Approximately 63 percent of the boys without an ambition and only 45 per cent of the ambitious boys fall in this group.

All others, including doubtful cases, were placed in the group showing little progress toward skill. This group includes 25 percent of the unambitious and 38 per cent of the ambitious boys.

TABLE NO. VI.

Progress in skill and financial progress	Boys having no Ambition		Boys having an Ambition	
	Number of cases	Per cent of cases	Number of cases	Per cent of cases
NOTABLE PROGRESS IN SKILL	27	12	106	17
(1) Financial progress	27	100	104	99
(2) No financial progress	0		2	1
LITTLE PROGRESS IN SKILL	54	25	238	38
(1) Financial progress	46	85	211	88
(2) No financial progress	8	15	27	12
NO PROGRESS IN SKILL	135	63	284	45
(1) Financial progress	100	74	202	71
(2) No financial progress	35	26	82	29

Table No. VI. contains the data for the three groups. From this table it is evident that *a larger number of boys with an ambition make progress toward skill than do boys without an ambition, and at the same time they make about the same financial progress.*

THE DIFFERENT OCCUPATIONS FOR WHICH THE BOYS DESIRED TO PREPARE

The names of the different occupations for which the ambitious boys desired to prepare follow. They are distributed under nine headings as given by the United States census of occupations, 1910. The figures which precede the names indicate the number of boys desiring to follow the particular line.

I. Agriculture, forestry and animal husbandry.

Only 28 of the boys desired to follow agricultural pursuits. The number is surprisingly small, when we remember that 130 of the boys had worked at various times in agricultural occupations. Apparently the back-to-the-farm movement has not affected these boys to any great extent.

II. Extraction of minerals.

Only two of the boys expressed themselves as desiring to be coal-miners. When we remember that 38 boys had had experience along this line these figures would seem to indicate that

mining is not an occupation for which boys are very anxious to prepare.

III. Manufacturing and mechanical industries and pursuits.

There were 325 boys who desired to enter lines listed under this heading. The most common lines are as follows:

65 machinists
50 printers
29 carpenters
20 electrical engineers
20 mechanics
19 electricians
16 civil engineers
13 plumbers
10 candy makers
8 bricklayers
5 painters and paper hangers
4 bakers
4 blacksmiths
5 jewelers
3 boiler makers
3 saddlers
3 broom makers
2 masons
2 lithographers
2 tinners
2 bookbinders
1 contractor
1 furniture man
1 moulder
1 tool maker
1 bottler
1 sheet metal worker
1 weaver
1 locomotive fireman
1 expert tuner
1 vulcanizer
1 tenter
1 upholsterer

Apparently the boys are more interested in manufacturing and mechanical pursuits than in agricultural and mining industries. One result as shown in these figures in the tendency away from many of the occupations in which the boys have had considerable preliminary experience. While 376 boys had some experience as general workers none gave this as their ambition. The same is true of errand-boys, drivers, messenger-boys, wrappers, and packers. The boys seemed to realize that many of their early occupations are typical blind-alleys. While more than 75 per cent of them were or had been employed in unskilled lines, over 60 per cent desired to leave such lines for more skilled trades. Only 200 had had experience along manufacturing lines, although as already shown, 325 desired such experience.

IV. Transportation.

Only 45 boys desired to follow lines that are listed under this heading. The list is as follows:

15 telegraphers
7 locomotive engineers
4 chauffeurs
4 mail clerks
4 rairroad officials
2 railroad dispatchers
2 mail carriers
3 messengers
2 brakemen
1 switchman
1 fireman

About an equal number of boys had had experience along these lines. With the exception of the messengers these workers may be considered skilled employees. It is significant that for the most part those who had experience in skilled lines desired to remain in the same.

V. Trade and commerce.

One hundred nineteen boys desired to enter lines that are listed by the United States census as concerned with trading and commerce. They are as follows:

38 business men
12 clerks and agents
9 grocerymen
7 pharmacists
2 hardware business
2 bankers
3 cutters
1 china store
1 cigar maker
12 optical business
9 auto business
1 decorator
1 cigarette business
1 window trimmer
1 tailor
1 newsboy
1 butcher

About the same number of boys had had experience along these lines, though most of them in minor positions such as office boys, wrappers, messengers, etc. Commercial pursuits appear to succeed in holding children who had some preliminary experience in the same.

VI. Professional service.

Fifty-three boys desired to enter lines that are listed under the heading professional service. They are distributed as follows:

6 musicians
7 newspaper work
4 physicians
4 lawyers
3 draftsmen
2 advertising artists
2 teachers
2 actors
2 veterinary surgeons
2 dentists
2 civil service
1 chemist

1 artist	1 author
1 minister	1 photo engraver
1 violinist	1 photographer
1 journalist	1 vaudeville
3 architects	1 reporter
3 sign painters	1 cartoonists

Very few of the boys had had any experience in professional pursuits. That so many of them desired such experience is significant. It is another indication of the inability of juvenile occupations to hold their workers. The boys realize as they grow older that the skilled trades and professions offer them better opportunities for vocational supremacy.

VII. Domestic and personal service.

3 bootblacks	1 cook
3 barbers	1 restaurant
3 hotel owners	1 hospital work
2 clothes pressers	1 laundry
2 pool hall business	

Only 16 boys were ambitious to follow domestic and personal pursuits. Over 75 had had experience along these lines. Apparently domestic and personal service is not primarily attractive to growing boys.

VIII. Clerical occupations.

Clerking is not an attractive occupation to many of these boys. Only 26 were ambitious along this line. Their ambitions varied as follows:

15 bookkeepers	6 stenographers
3 office work	2 stockroom in store

It is very difficult to classify the remaining boys in any of the foregoing groups. Three of them desired to go to college. One wanted to enter the navy, one to operate a moving picture machine, one to be a prize fighter, and one an aviator.

CONCLUSIONS

The chief facts brought out by this study may be summarized briefly.

1. More than 40 per cent of the boys leave schools located in cities other than the one in which they are now living. This means that if these boys were to receive vocational education for

the various pursuits which they enter it would be necessary for them to receive it before coming to Des Moines and Sioux City. A compulsory system of continuation school attendance might succeed in reaching most of these boys.

2. Workers in juvenile occupations are recruited largely from the sixth, seventh and eighth grades of the public schools and at about the time when the children are fourteen, fifteen, and sixteen years of age.

3. Boys leave school for a great variety of reasons. The three most commonly offered are "necessity," "dissatisfaction with school," and "preference for work." However, lack of parental control and interest is probably the chief cause.

4. About 75 per cent of the boys go to work immediately and only a very small percentage are idle more than a month after leaving school. This would indicate that there are plenty of opportunities for boys who want to work.

5. Over 85 per cent of the jobs which these boys entered were secured by the boys themselves with little or no assistance. For the most part, teachers do not attempt to assist them in securing employment. The boys as they leave school are thrown on their own resources. Vocational guidance would probably be of great value to most of these boys.

6. On the average a boy passes through three jobs in two years. It is evident from this that the work that the boys are in is unsatisfactory and does not succeed in holding them.

7. The boys give a great variety of reasons for quitting jobs. Their chief reason seems to be a desire for better wages. They think more of an increase in salary than they do of an advancement in skill.

8. The beginning wages of boys is about $5.50 a week. This includes boys of different ages. The range is from nothing to $20 a week. Fifty per cent of the boys receive a beginning weekly wage of from $4.50 to $7. This would seem fair wages for inexperienced boys of these ages.

9. Boys of the same age receive about the same beginning wage regardless of the number of years of schooling which they have had. Age is probably a much more important factor than grade of schooling in determining the beginning wage.

10. Boys eighteen years of age receive nearly twice the weekly wage of boys fourteen years old when they leave school. Between

boys thirteen, fourteen, and fifteen years of age, is little difference, but after the fifteenth year, there is a very remarkable increase, $1 per week from fifteen to sixteen, nearly $1.50 from sixteen to seventeen and over $1 from seventeen to eighteen.

11. Experience is the chief factor in determining the wages of boys. Boys with four years of experience double their wages and they do not reach a level until about the eighth or nineth year of experience, at which time they are receiving over $14. a week and are over twenty-one years of age.

12. Boys are engaged in over 111 different occupations. However, 33 of these occupations include about 70 per cent of the workers. The most popular occupations are typical blind-alleys; for example, helpers and general workers, drivers, errand messenger boys, wrappers and packers, etc.

13. A rough estimate indicates that from 75 per cent to 80 per cent of the boys are engaged in unskilled or semi-skilled pursuits.

14. The most common method followed by boys in learning a vocation is a "trial and success" method. They try this and that pursuit to see whether they are suited to it or it is suited to them. While no elaborate system of vocational schools would entirely eliminate this method of learning vocations, it might succeed in reducing and eliminating some of the waste resulting from the present system.

15. Of the 846 boys studied, 628 (75 per cent) had at the time of the investigation a definite ambition. That is, they desired to prepare for and enter a particular occupation.

16. Of the group having an ambition, 35 per cent were ambitious along lines of work in which they already had had most of their vocational experience.

17. In the case of about 23 per cent of the ambitious boys there was but a very slight correlation between their previous work and their ambitions.

18. In the case of 42 per cent of those having an ambition, there was absolutely no correlation between their previous work and their ambition.

19. Proportionally, more boys who are working along lines in which they desire to continue are financially successful than those whose ambitions lie outside of the fields of their previous work.

20. A larger number of boys with an ambition make some progress toward skill than do boys without an ambition. By progress towards skill is here meant advancing toward a skilled pursuit by changing occupations or by advancing in skill while remaining in an occupation, as in printing. From these figures it would seem that ambitious boys are more successful than unambitious boys, measured either in terms of skill or in amount of weekly wages.

21. Fewer than twenty per cent of the boys who had had experience in agricultural pursuits desired to remain in the same. Apparently the back-to-the-farm movement has not affected these boys to any great degree.

22. Mining is not an occupation for which boys desire to prepare. Only two of the thirty-eight boys who had had experience along this line desired to continue in it.

23. Manufacturing and mechanical industries and pursuits attract more than 50 per cent of the boys. This is true in spite of the fact that less than 40 per cent had had experience along these lines. The boys want to be machinists, printers, carpenters, electricians, mechanics, plumbers, and engineers. They are also greatly interested in commercial pursuits. In all, 119 boys desired to follow such lines. A very few are interested in professional services, domestic and personal service, and clerical occupations.

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